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 * (FILE 'HOME' ENTERED AT 16:43:19 ON 21 AUG 2011)
 FILE 'MEDLINE, CAPUS, EMBASE, BIOSIS' ENTERED AT 16:43:19 ON 21 AUG 2011
 L1 10471 S (ANTIBOD? (ION (GAMMA INTERFERON) OR (INTERFERON GAMMA (G
 L2 558 S L1 (ION) ADMINIST?
 L3 12 S L2 (P) (AIDS) OR (ACQUIRED IMMUNODEFICIENCY DISEASE
 L4 4 DUP REM L3 (8 DUPLICATES REMOVED)
 => s (antibod? (ION (alpha interferon) or (interferon alpha) or (IFN alpha) or (alpha IFN
 L5 3815 (ANTIBOD? (ION (ALPHA INTERFERON) OR (INTERFERON ALPHA) OR
 (IFN ALPHA) OR (ALPHA IFN)
 => s 15 (ION) administ?
 L6 103 L5 (ION) ADMINIST?
 => s 16 (P) (AIDS) or (Acquired Immunodeficiency disease)
 L7 0 L6 (P) (AIDS) OR (ACQUIRED IMMUNODEFICIENCY DISEASE)
 => s (antibod? (ION (TNF alpha) or (TNF) or (tumor necrosis factor alpha) or (tumor necrosis factor)
 3 FILES SEARCHED...
 L8 15929 (ANTIBOD? (ION (TNF ALPHA) OR (TNF) OR (TUMOR NECROSIS FACT
 R ALPHA) OR (TUMOR NECROSIS FACTOR?)
 => s 16 (ION) administ?
 L9 951 L8 (ION) ADMINIST?
 => s 19 (P) (AIDS or (Acquired Immunodeficiency disease)
 L10 9 L9 (P) (AIDS OR (ACQUIRED IMMUNODEFICIENCY DISEASE))
 => dup rem 110
 PROCESSING COMPLETED FOR L10
 L11 3 DUP REM L10 (6 DUPLICATES REMOVED)
 => dis 111 1-3 1516 abs kwid

L11 ANSWER 1 OF 2 MEDLINE DUPLICATE 1
 ACCESSION NUMBER: 96074694 MEDLINE
 DOCUMENT NUMBER: 96074694 PubMed ID: 7479962
 TITLE:
 Spontaneous inflammatory demyelinating disease in
 transgenic mice showing central nervous system-specific
 expression of tumor necrosis factor alpha.
 AUTHOR:
 Probert L; Akassoglou K; Pasparakis M; Kontogeorgos G;
 Kollias G
 CORPORATE SOURCE:
 Department of Molecular Genetics, Hellenic Pasteur
 Institute, Athens, Greece.
 SOURCE:
 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE
 UNITED STATES OF AMERICA, (1995 Nov 21) 92 (24): 11294-9.
 Journal code: FV3, 7509876, ISSN: 0027-8424.
 PUB. COUNTRY:
 United States
 (Journal, Article) (JOURNAL ARTICLE)
 LANGUAGE:
 English
 FILE SEGMENT:
 Priority Journals
 ENTRY MONTH:
 199512
 ENTRY DATE:
 Entered SIN: 19960124
 Last Updated on SIN: 19960124
 Entered Medline: 19951028

AB Cytokines are now recognized to play important roles in the physiology of
 the central nervous system (CNS) during health and disease. Tumor necrosis
 factor alpha (TNF-alpha) has been implicated in the pathogenesis of
 several human CNS disorders including multiple sclerosis, AIDS
 dementia, and cerebral malaria. We have generated transgenic mice that
 constitutively express a murine TNF-alpha transgene, under the control of
 its own promoter, specifically in their CNS and that spontaneously develop
 a chronic inflammatory demyelinating disease with 100% penetrance from
 around 3-8 weeks of age. High-level expression of the transgene was seen
 in neurons distributed throughout the brain. Disease is manifested by
 ataxia, seizures, and paresis and leads to early death. Histopathological
 analysis revealed infiltration of the meninges and CNS parenchyma by CD4+
 and CD8+ T lymphocytes, widespread reactive astrocytosis and microgliosis,
 and focal demyelination. The direct action of TNF-alpha in the
 pathogenesis of this disease was confirmed by peripheral
 administration of a neutralizing anti-murine TNF-
 alpha antibody. This treatment completely prevented the
 development of neurological symptoms, T-cell infiltration into the CNS
 parenchyma, astrocytosis, and demyelination, and greatly reduced the
 severity of reactive microgliosis. These results demonstrate that
 overexpression of TNF-alpha in the CNS can cause abnormalities in nervous
 system structure and function. The disease induced in TNF-alpha transgenic
 mice shows clinical and histopathological features characteristic of
 inflammatory demyelinating CNS disorders in humans, and these mice
 represent a relevant in vivo model for their further study.

AB . . . disease. Tumor necrosis factor alpha (TNF-alpha) has been
 implicated in the pathogenesis of several human CNS disorders including
 multiple sclerosis, AIDS dementia, and cerebral malaria. We have
 generated transgenic mice that constitutively express a murine TNF-alpha
 transgene, under the control of . . . and microgliosis, and focal
 demyelination. The direct action of TNF-alpha in the pathogenesis of this
 disease was confirmed by peripheral administration of a
 neutralizing anti-murine TNF-alpha antibody.
 This treatment completely prevented the development of neurological
 symptoms, T-cell infiltration into the CNS parenchyma, astrocytosis, and
 demyelination, and greatly . . .

L11 ANSWER 2 OF 3 CAPUS COPYRIGHT 2011 ATG
 ACCESSION NUMBER: 1995 002841 CAPUS
 DOCUMENT NUMBER: 1021791
 TITLE:
 Anti-IL-4 monoclonal antibody and IFN-gamma
 administration retains development of immune
 dysfunction and cytokine dysregulation during murine
 AIDS
 AUTHOR(S):
 Wang Y; Aristiani F; El Liass R; Beckham T;
 Wats R; R. R.
 CORPORATE SOURCE:
 Department Family Community Medicine, University
 Arizona, Tucson, AZ, USA
 SOURCE:
 Immunology, 1994, 83(3), 364-9
 CITEIN: IMMUN: ISSN: 0019-2875
 DOCUMENT TYPE:
 Journal
 LANGUAGE:
 English
 AB This study was designed to det. if administration of anti-interleukin-4

[illegible]

into the roles of immunomodulation in AIDS treatment as well as the mechanisms by which retrovirus infection induces cytokine dysregulation, facilitating immunopathogenesis in AIDS.

11 **Antibody and IFN-gamma**

administration of these agents prior to viral infection and cytokine dysregulation induced during AIDS.

AB **Interleukin-6 (IL-6) and antibody**

interferon-gamma (IFN-gamma) and **IL-6** administration after LPM retrovirus infection in female CD4⁺ mice resulted in reduced viral replication and increased expression of anti-viral cytokines, including IL-6 and IFN-gamma. Release of IL-6, IFN-gamma, and interleukin-6 (IL-6) and IFN-gamma release by T cells, spleen, and thymus of infected mice was significantly enhanced. IL-6 and IFN-gamma administration prior to infection significantly reduced viral replication and the development of AIDS. These findings suggest that treatment with the roles of cytokines in AIDS treatment as well as the mechanisms by which retrovirus infection induces cytokine dysregulation, facilitating immunopathogenesis in AIDS.

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IL-1 and IL-6, interferon- γ , interferon- β , interferon- α , and tumor necrosis factor- α (TNF- α) were measured in sera of mice. IL-1 and IL-6 were measured by enzyme-linked immunosorbent assay (ELISA). TNF- α was measured by enzyme-linked immunosorbent assay (ELISA). Interferon- γ was measured by enzyme-linked immunosorbent assay (ELISA). Interferon- β was measured by enzyme-linked immunosorbent assay (ELISA). Interferon- α was measured by enzyme-linked immunosorbent assay (ELISA). Tumor necrosis factor- α was measured by enzyme-linked immunosorbent assay (ELISA). Administration of rIFN- γ and anti-IL-4 antibody significantly inhibited the development of splenic T cell activity, and splenic T cell activity was restored by administration of IL-4 and IL-1. These results suggest that IL-4 and IL-6 are involved in the regulation of T cell activity. Administration of rIFN- γ and anti-IL-4 antibody significantly inhibited the development of splenic T cell activity, and splenic T cell activity was restored by administration of IL-4 and IL-1. These results suggest that IL-4 and IL-6 are involved in the regulation of T cell activity.

11. Lymph nodes and T cell activity

For AIDS mouse model, lymph node activity, T cell activity, tumor necrosis factor- α , anti-interleukin-4 monoclonal antibody and rIFN- γ administration in mouse AIDS model and treatment.

11. ANSWER: F. MEDLINE JOURNAL ARTICLE

ABSTRACT NUMBER: 10111111 MEDLINE

ENTRY NUMBER: 10111111 MEDLINE

TITLE: Tumor necrosis factor- α independent protective effect of recombinant IFN- γ against acute T cell leukemia in T cell-deficient mice.

AUTHOR: Fukui Y, Ino K, Kiyasato A

DEPARTMENT: Department of Parasitology, Tokyo University School of Medicine, Tokyo, Japan.

SOURCE: JOURNAL OF IMMUNOLOGY, 1991 Jun 15; 147: 3774-3778. Journal Paper ID: 10111111, ISSN: 0022-1767.

FOR COUNTRY: United States

LANGUAGE: English

FILE COMMENT: Abstracted in Index Medicus, Journals, Primary Journals

ENTRY MONTH: 10/11/91

ENTRY DATE: Entered: JIN: 10/11/91

Last updated on JIN: 10/11/91

Entered Medline: 10/11/91

AB: rIFN- γ conferred remarkable resistance against acute infection with leukemia virus in T cell-deficient athymic nude mice. Mice that received an i.p. injection of rIFN- γ every other day beginning 14 h before infection for a total of eight doses survived significantly longer than untreated control mice although all of the treated mice died after the lymph node was discontinued. Mice that received 14 doses of rIFN- γ survived significantly longer than those that received eight doses of the lymph node with the mice started dying soon after the final 14th injection of rIFN- γ and eventually all of the treated mice died. Histopathologic study revealed that the IFN- γ treatment prevented proliferation of the virus in all organs examined, including brain, lung, heart, liver, and spleen. The treatment was effective even when started 1 day after infection. Peritoneal macrophages obtained from mice injected with rIFN- γ were activated and effectively killed lymph nodes of T. gondii in vitro. TNF activity could not be detected in sera of the infected mice during treatment with rIFN- γ . **Administration of anti-TNF antibody did not affect the protective effect of rIFN- γ against T. gondii infection.** These facts indicate that rIFN- γ can confer resistance to acute infection with T. gondii with administration of lymph nodes derived from T cells and TNF. This suggests that rIFN- γ may be effective for therapy of toxoplasmosis in immunosuppressed patients who have impaired activity of T cell function, especially those with AIDS.

AB: T. gondii in vitro, TNF activity could not be detected in sera of the infected mice during treatment with rIFN- γ . **Administration of anti-TNF antibody did not affect the protective effect of rIFN- γ against T. gondii infection.** These facts indicate that rIFN- γ can confer resistance to acute infection with T. gondii with administration of lymph nodes derived from T cells and TNF. This suggests that rIFN- γ may be effective for therapy of toxoplasmosis in immunosuppressed patients who have impaired activity of T cell function, especially those with AIDS.

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10  CALL IMAGINE, X(1), Y(1), Z(1), X(2), Y(2), Z(2), X(3), Y(3), Z(3), X(4), Y(4), Z(4), X(5), Y(5), Z(5), X(6), Y(6), Z(6), X(7), Y(7), Z(7), X(8), Y(8), Z(8), X(9), Y(9), Z(9), X(10), Y(10), Z(10), X(11), Y(11), Z(11), X(12), Y(12), Z(12), X(13), Y(13), Z(13), X(14), Y(14), Z(14), X(15), Y(15), Z(15), X(16), Y(16), Z(16), X(17), Y(17), Z(17), X(18), Y(18), Z(18), X(19), Y(19), Z(19), X(20), Y(20), Z(20), X(21), Y(21), Z(21), X(22), Y(22), Z(22), X(23), Y(23), Z(23), X(24), Y(24), Z(24), X(25), Y(25), Z(25), X(26), Y(26), Z(26), X(27), Y(27), Z(27), X(28), Y(28), Z(28), X(29), Y(29), Z(29), X(30), Y(30), Z(30), X(31), Y(31), Z(31), X(32), Y(32), Z(32), X(33), Y(33), Z(33), X(34), Y(34), Z(34), X(35), Y(35), Z(35), X(36), Y(36), Z(36), X(37), Y(37), Z(37), X(38), Y(38), Z(38), X(39), Y(39), Z(39), X(40), Y(40), Z(40), X(41), Y(41), Z(41), X(42), Y(42), Z(42), X(43), Y(43), Z(43), X(44), Y(44), Z(44), X(45), Y(45), Z(45), X(46), Y(46), Z(46), X(47), Y(47), Z(47), X(48), Y(48), Z(48), 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SUBJECT: ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED
DATE: 06-28-97 BY: [redacted]

S = number of subjects; **N** = number of trials; **RT** = reaction time; **SD** = standard deviation; **SE** = standard error.

[illegible]

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific information required.

1. *Chlorophyll a* (Chl *a*)

01. ANSWER : F B
 ALTERNATE NUMBER: 9-1474 MEDLINE
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 TITLE:
 Spontaneous inflammatory myelomatous disease in
 transgenic mice showing intra-thymic system-specific
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 AUTHOR:
 Barrett TJ; Aikawa H; Pasparakis M; Font J; Jones G;
 Phillips G
 JOURN ABSTRACT:
 Department of Molecular Genetics, Heriot-Watt
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AB cytokines are now well established to play important roles in the physiology of the central nervous system (CNS) during health and disease. Tumor necrosis factor- α (TNF- α) has been implicated in the pathogenesis of several human CNS disorders including multiple sclerosis, AIDS, dementia, and cerebral malaria. We have generated transgenic mice that constitutively express a murine TNF- α transgene, under the control of its own promoter, specifically in their CNS and that spontaneously develop a chronic inflammatory demyelinating disease with 100% penetrance from around 6 weeks of age. High-level expression of the transgene was seen in neurons distributed throughout the brain. Disease is manifested by ataxia, seizures, paresis and paresis and leads to early death. Histopathological analysis revealed infiltration of the meninges and CNS parenchyma by T4 and T8 lymphocytes, widespread reactive astrogliosis and microglia, and focal demyelination. The direct action of TNF- α in the pathogenesis of this disease was confirmed by peripheral administration of a neutralizing anti-murine TNF- α antibody. This treatment completely prevented the development of neurological symptoms, T-cell infiltration into the CNS parenchyma, astrogliosis, and demyelination, and greatly reduced the severity of reactive microglia. These results demonstrate that overexpression of TNF- α in the CNS can cause abnormalities in myelin synthesis, attract infiltrating cells, and cause demyelination. TNF- α transgenic mice show clinical and histopathological features characteristic of inflammatory demyelination. No markers in humans, and these mice represent a relevant in vivo model for their human study.

At the same time, however, the new data that TNF-alpha has been implicated in the pathogenesis of several human diseases including multiple sclerosis, AIDS dementia, and cerebral malaria. We have therefore designed a line of mice that allow us to express a human TNF-alpha transgene under the control of a tissue-specific promoter, and to determine the effect of this human TNF-alpha on the pathogenesis of this disease. We will report on the results of administration of a tissue-specific promoter-driven TNF-alpha antibody.

